

1 What is claimed is:

- 2 1. In a disk drive comprising a plurality of concentric tracks, each track
3 comprising an embedded servo-wedge having a track identification field and a servo-wedge
4 identification field, a method for reducing the length of the servo-wedge comprising:
5 storing a first subset of a track identification data corresponding to a
6 selected track in the track identification field of the servo-wedge of the track;
7 storing a second subset of the track identification data in a first portion of
8 the wedge identification field; and
9 storing a subset of a wedge identification data corresponding to the
10 embedded servo-wedge in a second portion of the wedge identification field.
- 1 2. The method as defined in claim 1, wherein the first subset of the track
2 identification data comprises the least significant portions of the track identification data.
- 1 3. The method as defined in claim 2, wherein the least significant portions of
2 the track identification data comprises 12 bits of data.
- 1 4. The method as defined in claim 1, wherein the second subset of the track
2 identification data comprise the most significant portions of the track identification data.
- 1 5. The method as defined in claim 4, wherein the most significant portions of
2 the track identification data comprises 6 bits of data.
- 1 6. The method as defined in claim 1, wherein the subset of the wedge
2 identification data comprises the least significant portions of the wedge identification data.
- 1 7. The method as defined in claim 6, wherein the first portion of the wedge
2 identification field comprises 6 bits and the second portion comprises 3 bits.
- 3 8. The method as defined in claim 1, wherein the first subset of the track
4 identification data comprises the least significant portions of the track identification data,
5 wherein the second subset of the track identification data comprise the most significant
6 portions of the track identification data, and wherein the least significant portions and the
7 most significant portions are each separately encoded with a Gray Code.
- 1 9. The method as defined in claim 1, wherein the second subset of the track
2 identification data is stored sequential to the first subset of the track identification data.

- 1 10. The method as defined in claim 1, wherein the subset of a wedge
- 2 identification data is stored sequential to the second subset of the track identification data.

1 11. In a disk drive comprising a plurality of concentric tracks, each track
2 comprising a plurality of embedded servo-wedges each having a track identification field
3 and a servo-wedge identification field, wherein the plurality of embedded servo-wedges
4 are grouped into at least one servo-wedge group comprising a first sub-group and a
5 second sub-group of servo-wedges, a method for reducing the length of a servo-wedge
6 comprising:

7 selecting a servo-wedge from a selected servo-wedge group;

8 storing a first subset of a track identification data corresponding to a
9 selected track in the track identification field of the selected servo-wedge;

10 storing a second subset of the track identification data in a first portion of
11 the wedge identification field of the selected servo-wedge if the selected servo-
12 wedge is in the second sub-group;

13 storing a first wedge identification data corresponding to the selected
14 servo-wedge in a second portion of the wedge identification field of the selected
15 servo-wedge if the selected servo-wedge is in the second sub-group; and

16 storing a second wedge identification data corresponding to the selected
17 servo-wedge in the wedge identification field of the selected servo-wedge if the
18 selected servo-wedge is in the first sub-group.

1 12. The method as defined in claim 11, wherein the servo-wedges in the least
2 at one servo-wedge group are adjacent servo-wedges.

1 13. The method as defined in claim 11, wherein the at least one servo-wedge
2 group comprises 8 servo-wedges.

1 14. The method as defined in claim 11, wherein the first subset of the track
2 identification data comprises the least significant portions of the track identification data.

1 15. The method as defined in claim 14, wherein the least significant portions
2 of the track identification data comprises 12 bits of data.

1 16. The method as defined in claim 11, wherein the second subset of the track
2 identification data comprise the most significant portions of the track identification data.

1 17. The method as defined in claim 16, wherein the most significant portions
2 of the track identification data comprises 6 bits of data.

1 18. The method as defined in claim 11, wherein the first subset of the wedge
2 identification data comprises the least significant portions of the wedge identification data.

1 19. The method as defined in claim 18, wherein the wedge identification field
2 comprises 9 bits of data and wherein the first wedge identification data comprises 3 bits
3 of data.

1 20. The method as defined in claim 11, wherein the second wedge identification
2 data comprises the least significant portions and the most significant portions of the wedge
3 identification data.

1 21. The method as defined in claim 20, wherein the wedge identification field
2 comprises 9 bits of data and wherein the second wedge identification data comprises 9
3 bits of data.

1 22. The method as defined in claim 13, wherein the first sub-group comprises
2 1 servo-wedge and the second sub-group comprises 7 servo-wedges.

1 23. The method as defined in claim 11, wherein the first subset of the track
2 identification data comprises the least significant portions of the track identification data,
3 wherein the second subset of the track identification data comprise the most significant
4 portions of the track identification data, and wherein the least significant portions and the
5 most significant portions are each separately encoded with a Gray Code.

1 24. The method as defined in claim 11, wherein the first wedge identification
2 data is a subset of the second wedge identification data.

1 25. The method as defined in claim 11, wherein the second subset of the track
2 identification data is stored sequentially to the first subset of the track identification data.

1 26. The method as defined in claim 11, wherein the first wedge identification
2 data is stored sequential to the second subset of the track identification data.

1 27. A disk drive comprising a plurality of concentric tracks, each track
2 comprising a plurality of embedded servo-wedges each having a track identification field
3 and a servo-wedge identification field, wherein the plurality of embedded servo-wedges
4 are grouped into at least one servo-wedge group comprising a first sub-group and a
5 second sub-group of servo-wedges, the disk drive further comprises:

6 the track identification field adapted to store a first subset of a track
7 identification data corresponding to a selected track in a selected servo-wedge in a
8 selected servo-wedge group, and wherein the wedge identification field further
9 comprises:

10 a first portion adapted to store a second subset of the track
11 identification data corresponding to the selected servo-wedge if the
12 selected servo-wedge is in the second sub-group,

13 a second portion adapted to store a first wedge identification data
14 corresponding to the selected servo-wedge of the selected servo-wedge if
15 the selected servo-wedge is in the second sub-group, and

16 wherein the wedge identification field is further adapted to store a second
17 wedge identification data corresponding to the selected servo-wedge if the selected
18 servo-wedge is in the first sub-group.

1 28. The method as defined in claim 27, wherein the servo-wedges in the least
2 at one servo-wedge group are adjacent servo-wedges.

1 29. The method as defined in claim 28, wherein the at least one servo-wedge
2 group comprises 8 servo-wedges.

1 30. The disk drive as defined in claim 27, wherein the first subset of the track
2 identification data comprises the least significant portions of the track identification data.

1 31. The disk drive as defined in claim 30, wherein the least significant
2 portions of the track identification data comprises 12 bits of data.

1 32. The disk drive as defined in claim 27, wherein the second subset of the track
2 identification data comprise the most significant portions of the track identification data.

1 33. The disk drive as defined in claim 32, wherein the most significant
2 portions of the track identification data comprises 6 bits of data.

1 34. The disk drive as defined in claim 27, wherein the first subset of the wedge
2 identification data comprises the least significant portions of the wedge identification data.

1 35. The disk drive as defined in claim 34, wherein the wedge identification
2 field comprises 9 bits of data and wherein the first wedge identification data comprises 3
3 bits of data.

1 36. The disk drive as defined in claim 27, wherein the second wedge
2 identification data comprises the least significant portions and the most significant
3 portions of the wedge identification data.

1 37. The disk drive as defined in claim 36, wherein the wedge identification
2 field comprises 9 bits of data and wherein the second wedge identification data comprises
3 9 bits of data.

1 38. The disk drive as defined in claim 29, wherein the first sub-group
2 comprises 1 servo-wedge and the second sub-group comprises 7 servo-wedges.

1 39. The disk drive as defined in claim 27, wherein the first subset of the track
2 identification data comprises the least significant portions of the track identification data,
3 wherein the second subset of the track identification data comprise the most significant
4 portions of the track identification data, and wherein the least significant portions and the
5 most significant portions are each separately encoded with a Gray Code.

1 40. The disk drive as defined in claim 27, wherein the first wedge identification
2 data is a subset of the second wedge identification data.

1 41. The disk drive as defined in claim 27, wherein the second subset of the track
2 identification data is stored sequentially to the first subset of the track identification data.

1 42. The disk drive as defined in claim 27, wherein the first wedge identification
2 data is stored sequential to the second subset of the track identification data.